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2105 Patentable Subject Matter — >Living Subject Matter<* [R-6]

The decision of the Supreme Court in *Diamond v. Chakrabarty*, 206 USPQ 193 (1980) held that microorganisms produced by genetic engineering are not excluded from patent protection by 35 U.S.C. 101. It is clear from the Supreme Court decision and opinion that the question of whether or not an invention embraces living matter is irrelevant to the issue of patentability. The test set down by the Court for patentable subject matter in this area is whether the living matter is the result of human intervention.

In view of this decision the Office >has issued<** these guidelines as to how 35 U.S.C. 101 will be interpreted.

The Supreme Court made the following points in the Chakrabarty opinion:

> 1. "Guided by these cannons of construction, this Court has read the term `manufacture' in § 101 in accordance with its dictionary definition to mean `the production of articles for use from raw materials prepared by giving to these materials new forms, qualities, properties, or combinations whether by hand labor or by machinery.' "
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> 2. "In choosing such expansive terms as `manufacture' and `composition of matter,' modified by the comprehensive `any,' Congress plainly contemplated that the patent laws would be given wide scope."
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> 3. "The Act embodied Jefferson's philosophy that `ingenuity should receive a liberal encouragement.' V Writings of Thomas Jefferson, at 75-76. See *Graham v. John Deere Co.*, 383 U.S. 1, 7-10 (1966). Subsequent patent statutes in 1836, 1870, and 1874 employed this same broad language. In 1952, when the patent laws were recodified Congress replaced the word `art' with `process,' but otherwise left Jefferson's language intact. The Committee Reports accompanying the 1952 act inform us that Congress intended statutory subject matter to `include any thing under the sun that is made by man.' S. Rep. No. 1979, 82d Cong. 2d Sess., 5 (1952) "
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> 4. "This is not to suggest that § 101 has no limits or that it embraces every discovery. The laws of nature, physical phenomena, and abstract ideas have been held not patentable."
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> 5. "Thus, a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented the law of gravity."
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> 6. "His claim is not to a hitherto unknown natural phenomenon, but to a nonnaturally occurring manufacture or composition of matter — a product of human ingenuity `having a distinctive name, character [and] use.' "
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> 7. "Congress thus recognized that the relevant distinction was not between living and inanimate things, but between products of nature, whether living or not, and human-made inventions. Here, respondent's microorganism is the result of human ingenuity and research."
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> 8. After reference to *Funk Seed & Kalo Co.*, 333 U.S.127 (1948), "Here, by contrast, the patentee has produced a new bacterium with markedly different characteristics from any found in nature and one having the potential for significant utility. His discovery is not nature's handiwork, but his own; accordingly it is patentable subject matter under § 101."

A review of the Court statements above as well as the whole Chakrabarty opinion reveals:

(1) That the Court did not limit its decision to genetically engineered living organisms,

(2) The Court enunciated a very broad interpretation of "manufacture" and "composition of matter" in Section 101 (Note esp. quotes 1, 2, and 3 above),